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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/646,888	08/25/2003	Bernard Carpentier	612.42975X00	1246
20457	7590	01/12/2005	EXAMINER	
ANTONELLI, TERRY, STOUT & KRAUS, LLP 1300 NORTH SEVENTEENTH STREET SUITE 1800 ARLINGTON, VA 22209-9889			TAYLOR, VICTOR J	
			ART UNIT	PAPER NUMBER
			2863	

DATE MAILED: 01/12/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<p align="center"><b>Office Action Summary</b></p>	<b>Application No.</b> 10/646,888	<b>Applicant(s)</b> CARPENTIER, BERNARD	
	<b>Examiner</b> Victor J. Taylor	<b>Art Unit</b> 2863	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 25 August 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-3 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 August 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>6</u> . | 6) <input checked="" type="checkbox"/> Other: <u>Office Action</u> .                    |

## DETAILED ACTION

### *Drawings*

1. The drawings are objected to under 37 CFR 1.83(a) because they fail to show the claimed method steps for estimating the volume ratio of the oil/gas GOR in the well bore while drilling. No drawings were presented in the instant application as filled.

I. The claimed limitation steps show method-processing steps for determining the volume of gas ( $V_g$ ) combined with steps for determining the volume of oil ( $V_o$ ) with method steps for determining the volume ratio of the gas and oil (GOR) by using the cited equation combined with method processing steps to measure the total organic carbon TOC. The new block and level drawing or schematic or similar drawing showing these claimed processing steps is required as described in the specification.

II. Correction to the specification is required to show support for the new drawing or drawings in the brief description and in the detailed description of the drawings.

III. The statement of no new matter is required.

IV. Any structural detail that is essential for a proper understanding of the disclosed invention should be shown in the drawing. MPEP § 608.02(d). Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement-drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and

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where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency.

Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the examiner does not accept the changes, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Specification***

2. The abstract of the disclosure is objected to because the abstract is missing. The abstract must comprise a single paragraph on the single page and consists of 50-150 word in length. Correction is required. See MPEP § 608.01(b).

3. The disclosure is objected to because of the following informalities:

I. Page 1 of the disclosure is improper and contains reference to an abstract in improper form.

II. The specification concerning the background of the invention does not clearly describe the related cited prior art for determining the gas oil ration. The applicant cites prior art of two US patents in the IDS US 5,635,631 and US 5,612,493 and fails to disclose the features and relevance of the prior art to the invention as found in the instant application. The applicant claims priority to the French application FR 0210659 the US specification appears to be a translation of the French document. The cited prior

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art cited in the IDS is the cited prior art of the search report in the foreign application.

Appropriate correction is required.

4. The disclosure is further objected to because of the following informalities:

I. The applicant reminds on page 3 that the gas oil ratio GOR is the Ratio = gas/oil in volumes of gas volume and oil volume as defined in page three of the specification. He further goes on to describe the various steps for determining the volume of gas  $V_g$  and further describes steps to determine the volume of oil  $V_o$  using measurements and an analysis method by using prior art of the Rock-Eval type to estimate the volume and discloses the method as claimed uses the following patents to describe and implement the invention as filled by the applicant: "FR 2722296, (US 5,843,787) and FR 2786568, (US 4352673) and FR 2472754, (US 4153415) found on page 3 of the specification. It is not clear to the examiner in the detailed description of the instant invent just what is not cited prior art in the claimed invention as described on page three of the specification. Appropriate correction is required.

#### ***Information Disclosure Statement***

5. The listing of references in the specification is not a proper information disclosure statement. 37 CFR 1.98(b) requires a list of all patents, publications, or other information submitted for consideration by the Office, and MPEP § 609 A (1) states, "the list may not be incorporated into the specification but must be submitted in a separate paper." The applicant lists various publications and US Patents on page 3 of the specification and fails to disclose these publications in the IDS. Therefore, unless the examiner on form PTO-892 has cited the references, they have not been considered.

***Prior Art***

6. The prior art made of record and not relied upon is considered pertinent to applicant;

I. Leder et al., US 5,473,939 in class 73/155 is cited for the method for pressure and volume and temperature measurement and characterization of subsurface formations using measurement data from a borehole to measure downhole gas and oil volume and connate fluid present in the subsurface formation in lines 40-65 of column 4 in combination with the top side signal processor 22 in figure 1.

***Claim Rejections - 35 USC § 102***

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) The invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claims 1-3 are rejected under 35 U.S.C. 102(b) as being anticipated by Alexander in US 6,031,548.

With regard to claim 1, Alexander discloses a method for measurement of the rate of a gas/oil ration in figure 1 and further discloses the methods of measurement in the well in figure 1 and the abstract.

He further discloses the limitation to “determine the volume of gas...” in figure 1 and in lines 30-65 of column 2.

Alexander further discloses the limitation to “determine the volume of oil...” in figure 1 and teaches a volume of oil production rate in lines 50-55 of column 4. and

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measures annulus gas volume with steps to determine gas volume in lines 50-65 of column 3 by using the mass flow equations in line 5 of column 4.

Alexander further discloses the limitation to “determine the volume ratio GOR by calculation of the volume of oil and gas...” in figure 1 and using the linear equations with the equations in column 6 and discloses steps for calculation for the GOR in line 31 of column 6. He further discloses measurements in the wellbore for annulus gas volume with processing steps to determine the gas volume in lines 50-65 of column 3 by using the mass flow equations in line 5 of column 4.

As to claim 2 and claim 3, claim 2 and 3 stand rejected a rejected base claim.

Alexander further discloses a method for measurement of the rate of a gas/oil ration in figure 1 and discloses the method to calculate the GOR in line 30 of column 6 using the equations found in line 20 of column 6. Alexander further discloses a method for measurement taking into account “that the gas volume is a concentration of the drilling fluids and the flow of drilling fluids and a rate of penetration of the borehole” all elements of measuring while drilling in the disclosed borehole tool 1 in figure 1 considered as a borehole tool using pressure and volume measurements in the broad sense of the limitation.

### ***Conclusion***

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Victor J. Taylor whose telephone number is 571-272-2281. The examiner can normally be reached on 8:00 to 5:30 PM.


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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John E. Barlow can be reached on 571-272-2863. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

10. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

VJT.

  
7 January 2005.

  
John Barlow  
Supervisory Patent Examiner  
Technology Center 2800